

IN THE CLAIMS:

1. (currently amended) A skew shape variable laminated iron core in which plural iron core pieces are laminated through caulking projections and caulking holes in which the caulking projections are fitted,

characterized in that in the iron core pieces except a lowermost layer, the caulking projections and the caulking holes are respectively formed at different positions of a same radius from a rotation center at skewing of the iron core pieces, and the caulking hole has an arc shape as viewed from the ~~rotating~~ rotation center and is longer in a circumferential direction than the caulking projection fitted in the caulking hole, and when the caulking projection of the iron core piece of an upper layer is fitted in the caulking hole of the iron core piece of a lower layer under the upper layer, a gap is formed in the circumferential direction of each of the caulking holes,

wherein with the upper and lower layers laminated together and the caulking projection of the iron core piece of the upper layer fitted in the caulking hole of the iron core piece of the lower layer, the caulking projection of the iron core piece of the upper layer is movable circumferentially within the caulking hole of the iron core piece of the lower layer to thereby allow the laminated iron core pieces of the upper and lower layers to move relative to each other around the rotation center a predetermined amount, as determined by relative circumferential dimensions of the caulking projection of the core piece in the upper layer and caulking hole of the iron core piece of the lower layer.

2. (cancelled).

3. (previously presented) The skew shape variable laminated iron core as recited in claim 1, characterized in that a caulking hole is formed to pass through the plural laminated iron core pieces, and the caulking projection fitted in the caulking hole formed to pass through reaches to a lower part position of the caulking hole formed to pass through.

4. (previously presented) The skew shape variable laminated iron core as recited in claim 1, characterized in that

the caulking holes include a first caulking hole formed in every second iron core piece of the iron core pieces in a lamination direction, and a second caulking hole formed at a position different from the first caulking hole and to pass through the plural laminated iron core pieces, and

the caulking projections include a first caulking projection reaching to a lower part position of the first caulking hole, and a second caulking projection reaching to a lower part position of the second caulking hole.

5. (currently amended) A manufacturing method of a skew shape variable laminated iron core, comprising:

forming a caulking hole in a lowermost layer iron core piece, and forming caulking projections and caulking holes respectively in iron core pieces except the lowermost layer at a same radius position from a rotation center at skewing and at different positions, and

forming a laminated iron core by fitting the caulking projection of the iron core piece of an upper layer into the caulking hole of the iron core piece of a lower layer,

characterized in that the caulking hole of the iron core piece in the lower layer has an arc shape as viewed from the rotating center and is formed to be longer than the caulking projection in a circumferential direction with respect to the rotation axis as a center, and when the caulking projection of the iron core piece of the upper layer is fitted into the caulking hole of the iron core piece of the lower layer, a gap is formed between the caulking hole in the iron core piece in the lower layer and the caulking projection of the iron core piece in the upper layer and in the circumferential direction, and

after laminating the iron core piece in the upper and lower layers, relatively moving the laminated iron core pieces in the upper and lower layers relative to the rotation center and thereby causing the caulking projection of the iron core piece of the upper layer to move circumferentially within the caulking hole of the iron core piece of the lower layer a predetermined amount as determined by relative circumferential dimensions of the caulking projection of the core piece in the upper layer and the caulking hole of the iron core piece of the lower layer.

6. (previously presented) The skew shape variable laminated iron core as recited in claim 1 wherein the plural iron core pieces are each punched out by a die apparatus.

7. (previously presented) The skew shape variable laminated iron core as recited in claim 1 wherein the caulking projections have one of a V shape, a U shape and an inverted trapezoidal shape.

8. (previously presented) The skew shape variable laminated iron core as recited in claim 7 wherein the caulking projections have a top that is each positioned approximately at a center.

9. (previously presented) The skew shape variable laminated iron core as recited in claim 5 further comprising the step of punching out a plurality of the iron core pieces by a die apparatus.

10. (previously presented) The skew shape variable laminated iron core as recited in claim 5 wherein the step of forming the caulking projections comprises forming the caulking projections to have one of a "V", "U", and inverted trapezoidal shape.

11. (previously presented) The skew shape variable laminated iron core as recited in claim 10 wherein the caulking projections have a top that is each positioned approximately at a center.

12. (currently amended) ~~[[A]] The skew shape variable laminated iron core in which plural iron core pieces are laminated through caulking projections and caulking holes in which the caulking projections are fitted,~~

~~—— characterized in that in the iron core pieces except a lowermost layer, the caulking projections and the caulking holes are respectively formed at different positions of a same radius from a rotation center at skewing of the iron core pieces, and the caulking hole is longer in a circumferential direction than the caulking projection fitted in the caulking hole, and when the caulking projection of the iron core piece of an upper layer is fitted in the caulking hole of the iron core piece, a gap is formed in the circumferential direction of each of the caulking holes, as recited in claim 1~~ characterized in that the caulking hole has an arc shape when viewed from the rotation center at the skewing;

~~—— characterized in that the caulking hole is formed to pass through the plural laminated iron core pieces, and the caulking projection fitted in the caulking hole formed to pass through reaches to a lower part position of the caulking hole formed to pass through.~~